KENSINGTON®

Turbo Mouse® 4.0 User Manual

A guide to using the
Kensington Turbo Mouse® 4.0
Hardware and Software

Turbo Mouse 4.0 User Manual
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Chapter One: Introduction

Thank you for choosing Kensington's Turbo Mouse trackball for your Macintosh computer. Since its introduction in 1987, the Turbo Mouse trackball has won more awards than any other input device for the Macintosh. Now, Kensington introduces the latest advancements in trackball technology with the Turbo Mouse 4.0 trackball.

Please refer to this manual to install and become familiar with the powerful, new Turbo Mouse cursor control options. We think you'll agree with the thousands of users who voted the original Turbo Mouse trackball Best Input Device for the Macintosh.

Special Features Overview

Because it's a trackball, your new Turbo Mouse device has many features not found in other Macintosh mouse devices:

Hardware

— **Space saving design** requires minimal deskspace. The Turbo Mouse trackball is only 4½"x 5¾".

— **Optical technology** with 200 counts per inch (CPI) resolution gives you smoother cursor tracking and more precise control.

— **Superior hardware design** offers greater comfort and accommodates most hand sizes, and both left- and right-handed users.

— **Large ball** for greater control and ultrasmooth movement. You move only the ball, not the whole mouse.

— **Comfortably positioned buttons** that have a light, easy-to-press feel. Unlike other trackballs, you won't have to reach or stretch to click. Use the Turbo Mouse software (see Software section) to assign different functions to these buttons.

— **Two Apple Desktop Bus (ADB) ports** so you can chain other ADB devices. Even use your Turbo Mouse trackball and your standard Apple Mouse at the same time.

— **Removable cable** can be easily replaced if damaged, instead of replacing your entire device.

— **A/UX compatible** right out of the box.

— **Five Year Warranty.** (See Appendix F.)

Software

— **Custom Acceleration** provides ten standard acceleration options, plus the ability to customize acceleration to the way you work. Users of all abilities can adjust cursor speed to their liking.

— **Enhanced Mouse Buttons** let you choose from one of seven programmable button commands to maximize mouse performance: Normal Mouse Button, Lock Button Down, Send Double-Click, Send String, Axis-Only, Brilliant Cursor, or Slow Cursor.

— **Introducing Brilliant Cursor™ technology**, the latest in advanced cursor control. With the Brilliant Cursor function activated, you can automatically jump to HotSpots on screen that you define.

— **Application Sets** let you create and save different combinations of Turbo Mouse commands for different applications. The Turbo Mouse software automatically accesses the feature Set for the application in use.

— **Slow Cursor technology** offers a way to temporarily move your cursor slowly and more precisely on screen as needed. You can even select single pixels on screen.

— **Mini Control Panel** is a quick and easy way to access most of the Turbo Mouse features without interrupting your work.

— **Cursor Keys** activate Turbo Mouse software commands via keyboard modifiers (Shift, Option, Command, and Control keys).

— **System 7 Savvy.** Turbo Mouse software is fully System 7 compatible, supporting standard Apple events, balloon help, and other System 7 features.

System Requirements

The Turbo Mouse trackball and the Turbo Mouse software require an Apple Macintosh computer with at least one ADB port. A hard disk is not required, but is highly recommended.

The Turbo Mouse Software requires System 6.05 or greater. We recommend you use System 6.0.7 or later, including System 7. The Turbo Mouse trackball will also work with computers designed with low power requirements, such as the Macintosh PowerBook™ computers. However, it will not work with the Macintosh 128K, 512K, 512K enhanced or Macintosh Plus.

Chapter Two: Setting Up

This chapter includes detailed instructions for installing your Turbo Mouse trackball. We recommend you install the software first, or you will need to restart your Macintosh an extra time. If you experience problems during or after installation, please refer to the Troubleshooting guide in Appendix A.

Registration

Please fill out the postage paid Owner Registration Card and return it to Kensington. Your information helps us improve our products, and enables us to notify you of future upgrades and other Kensington special offers.

NOTE: If you start your Macintosh from a floppy disk, or if you have limited disk space or RAM, please read Appendix B.

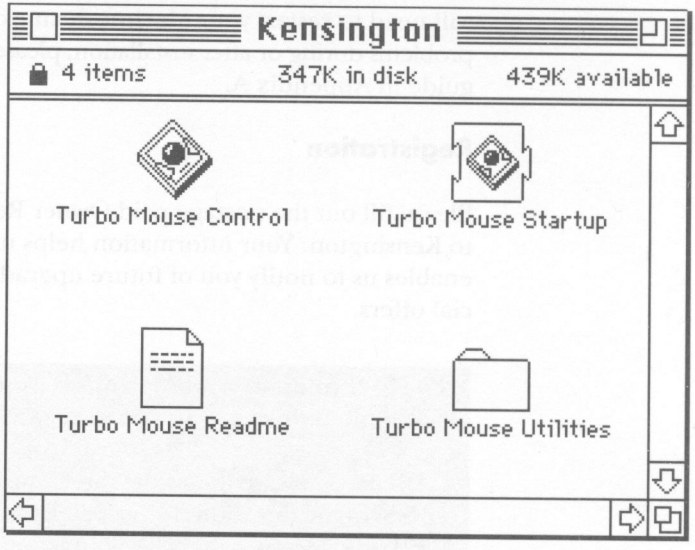
A/UX users: Please follow the directions for installing the hardware only. Skip the directions for installing the Turbo Mouse software. The Turbo Mouse trackball will function as an A/UX mouse without software installed, and the Turbo Mouse software will not work under A/UX. Additional A/UX notes may be found in Appendix C.

To Install the Turbo Mouse Software

1. Make sure the original disk is write-protected. (A disk is write-protected if you can see through the square hole at the upper right corner of the disk. A small square sliding tab on the back of the disk is used to write-protect and write-enable disks.)

2. Make a backup of the original disk and use the original for the installation. Keep the backup disk in a safe place in case the original disk becomes damaged. (If you are not familiar with making a backup, refer to your Apple System Software Manual.)

3. Insert the write-protected original disk in the internal floppy drive. The following window with the Turbo Mouse software should appear on your desktop.



4. Double-click the ReadMe file as it contains the most up-to-date information about your Turbo Mouse software and hardware.

5. Drag the **Turbo Mouse Startup** icon on top of the active System Folder of your startup disk. (The startup disk is usually the one in the upper right hand corner of the desktop.)

   If you are using System 7, click "Yes" when asked if you wish to put the Turbo Mouse Startup in the Extensions Folder.

6. Drag the **Turbo Mouse Control** application into any convenient folder. You do not need to drag it to your System Folder as Turbo Mouse Control is an application.

NOTE: You do not need to copy the **Turbo Mouse Utilities** folder or the **Turbo Mouse ReadMe** file onto your hard disk. For more information on **Turbo Mouse Utilities,** see Appendix B.

7. Now follow the instructions in the next section to install the Turbo Mouse hardware.

To Install the Turbo Mouse Hardware

1. Make sure the power to your Macintosh is turned off. If your Macintosh is running, use the Shut Down command from the Special menu first to close all open files safely.

WARNING: Never plug or unplug ADB cables when the power to the Macintosh is on as this can cause damage to your computer.

2. Plug one end of the Apple Desktop Bus (ADB) cable that came with your Turbo Mouse trackball into one of the two ADB ports on the Turbo Mouse trackball.

NOTE: Never force a cable into a port. If you are having trouble, make sure the pins in the cable match the holes in the port.

Either port may be used as they are identical and can be used interchangeably. In fact, you can use the second ADB port on the Turbo Mouse trackball to connect another ADB device (like a standard mouse or graphics tablet) to your Macintosh.

3. Plug the other end of the cable into an unused ADB port on the back of your Macintosh or keyboard.

If you do not have an ADB port available, you may need to unplug your Apple mouse. You can plug it into the second ADB port on the Turbo Mouse trackball.

4. Gently place the ball into the Turbo Mouse housing.

   The ball may roll stiffly at first. Some units require use before their rollers "break in." To break in the rollers, roll the ball back and forth, applying light pressure for 30-45 seconds. You should be able to roll the ball smoothly in either direction.

Using Turbo Mouse Hardware

Your new Turbo Mouse trackball is very easy to use. Its basic hardware features are similar to a standard mouse. However, you'll also want to use the Turbo Mouse software to take full advantage of all its features. Refer to Chapter 3: Using Turbo Mouse Software.

Positioning Your Turbo Mouse Trackball

Most users will find the most comfortable position for the Turbo Mouse trackball is next to the keyboard at a slight angle. They use their fingertips to control the ball, using the thumb and pinky to click the buttons. You can position your Turbo Mouse trackball on either side of the keyboard, for left- or right-handed use.

Experiment with different positions to find one that suits you best. Many people find that a position that leaves your hand and wrist in roughly the same neutral position as when your arm is loosely hanging by your side will produce the least fatigue.

Avoid positions that cause you to reach long distances or excessively bend your wrist. Experts on ergonomics advise taking frequent breaks when using a computer for extended periods. When you return from a break, slightly reposition the keyboard, mouse and trackball to help keep the devices in comfortable positions. This helps reduce fatigue. Additionally, experts stress the importance of proper lighting, seating, and positioning of the computer monitor.

Securing Your Turbo Mouse Trackball

Your Turbo Mouse trackball comes equipped to accommodate Kensington's MicroSaver® security system. You will notice a built-in security hole, located next to the ADB ports at the top of your mouse.

Kensington's MicroSaver security system is a cable and locking device that helps prevent theft of your peripherals and computer. A sturdy, steel locking device fits into the hole (designed specifically for it). A 6-foot galvanized steel cable wraps around an immovable object, such as a table or desk leg, to secure your trackball.

The MicroSaver security system is available at all major computer dealers and mail order companies worldwide. Ask your local dealer for more information. For the name of a local dealer or more information, contact Kensington at the address inside the front cover of this manual.

Chapter Three: Using Turbo Mouse Software

This chapter describes each of the Turbo Mouse software functions in detail. Feel free to experiment on screen as you read through the detailed descriptions below.

The Turbo Mouse Control Window

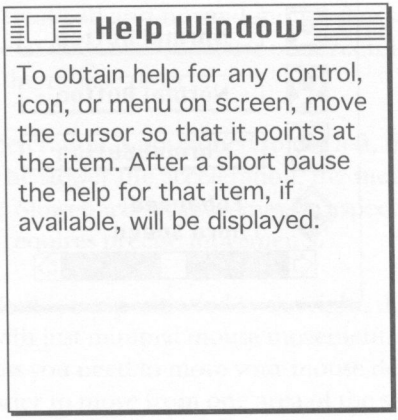
With the Turbo Mouse software, you can customize the actions of your Turbo Mouse trackball and other Macintosh input devices. Double-click the Turbo Mouse Control icon to load the program.

System 6.0 users, please note that Turbo Mouse Control is an application and not a control panel device. It cannot be accessed from the System 6.0 control panel.

The Turbo Mouse title window will appear first. You can click anywhere on screen to continue, or wait until the Turbo Mouse Control window appears.

On-Screen Help

The Turbo Mouse software comes with unique on-screen Help. You can choose Help Window from the Apple ( ) menu, type ⌘-H or press the Help button on your keyboard if you have one. A small Help window will appear.

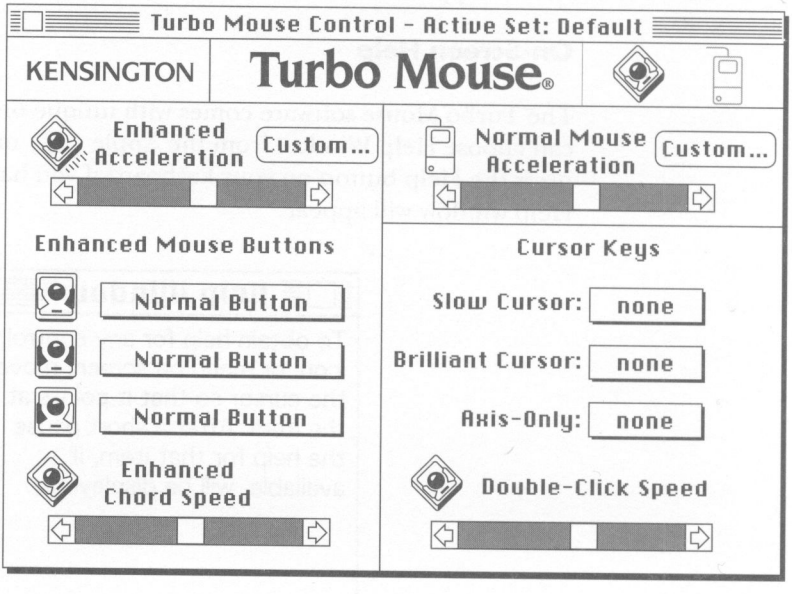

Help Window
To obtain help for any control, icon, or menu on screen, move the cursor so that it points at the item. After a short pause the help for that item, if available, will be displayed.

As you position the cursor on a particular feature, the Turbo Mouse Help window will display a brief description of that function. You can move this window to any convenient place on screen. To turn off Help, click the close box of the window.

If you are running System 7, you can also use Balloon Help or Turbo Mouse Control Help in the Balloon Help menu.

In the upper right hand corner of the Turbo Mouse Control window there are two icons. The Turbo Mouse icon represents your Turbo Mouse 4.0 trackball and the normal mouse icon represents any other normal Macintosh compatible input device. (Most Macintosh input devices, including older versions of Kensington's Turbo Mouse trackballs, are recognized as normal mouse devices.)

The Turbo Mouse software automatically recognizes the type of device that has been moved last and highlights the appropriate icon. If you have more than one input device connected to the ADB port of your Macintosh, the icon of the device you moved last will be highlighted.



NOTE: If you are making changes to commands and they do not seem to be taking effect, check to insure you are modifying a feature that applies to the highlighted device.

"Enhanced" vs. Normal Mouse Features

Your Turbo Mouse trackball has many features not found in normal mouse devices. For example, Enhanced Acceleration, Enhanced Mouse Buttons and Enhanced Chord Speed are options that apply only to your Turbo Mouse trackball.

However, you can use other commands of the Turbo Mouse software for both Turbo Mouse and normal mouse devices. Cursor Keys and Double-Click Speed are common to both. Normal Mouse Acceleration is used to change acceleration for normal mouse devices only.

These functions will be discussed in more detail later in this chapter.

To restore the Factory Standard Set at any time while experimenting with the Turbo Mouse software options: Choose Factory Standard Set from the Restore menu or type ⌘-R to return to the options that were selected when you first used your Turbo Mouse trackball.

Changing Acceleration

With the Turbo Mouse software, you can modify acceleration for both the Turbo Mouse trackball and normal mouse devices. Acceleration determines the speed your cursor moves on screen in relation to how quickly you move the mouse device.

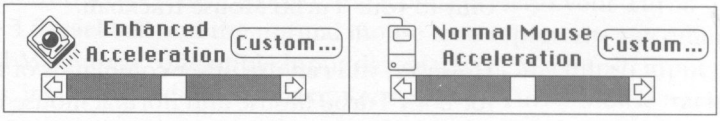
For example, if acceleration is positioned to the left, the cursor moves slowly on screen. The slower the acceleration, the more you must move your mouse device. Slower acceleration may be especially helpful for detailed work that requires precise movements.

Conversely, if acceleration is positioned to the right, the cursor speeds across the screen with just minimal mouse movement. The faster the acceleration, the less you need to move your mouse device. Faster acceleration makes it easier to move from one area of the screen to another,

or to move across large screens, or to move between screens when using more than one monitor.

To change the acceleration for Turbo Mouse or normal mouse devices:

1. Move the appropriate acceleration scroll box to the right to increase the speed at which the cursor moves on screen. Move it to the left to decrease cursor speed.



2. For both Turbo Mouse and normal mouse devices there are ten possible speed positions at this level.

   The position farthest to the left of the scroll bar causes no acceleration (like the Tablet speed in the Apple mouse control panel). Refer to the Setting Custom Acceleration section that follows for more detailed information on custom acceleration.

NOTE: While the Turbo Mouse Startup file is in your System Folder, you should use the Turbo Mouse Control program to adjust your Turbo Mouse and other normal mouse devices. The Apple mouse control panel should not be used.

(Changes made with the Apple mouse control panel will be detected and your normal mouse acceleration will be adjusted, but this is not the recommended method.)

Using Custom Acceleration

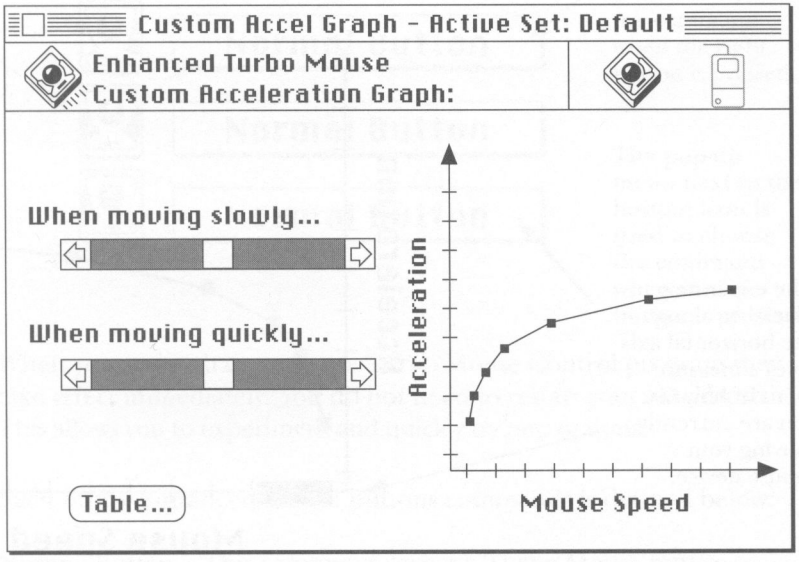
The Turbo Mouse software gives users of all abilities a variety of ways to adjust acceleration. In the main Turbo Mouse Control window, you can use the acceleration scroll bar to choose one of 10 positions. Clicking the Custom button takes you to another level of customization.

When you click Custom, you can use the two scroll bars to fine tune the acceleration when you are moving your mouse device slowly and when you are moving it quickly. This same window has a graph that lets you modify the acceleration curve directly.

Finally, more experienced users can click the Table button to enter acceleration values. This is the most intense level of Custom Acceleration, designed for users who would like to create and experiment with different types of acceleration curves.

The Custom setting can be quite powerful because a single setting enables you to have slow cursor movement as well as the ability to zip across the screen. In other words, with slow ball movement, there will be little acceleration, so your cursor will move very slowly. With quick ball movement, there will be greater acceleration, so your cursor will move very quickly.

To create a custom setting, click the Custom button next to the acceleration scroll bar for the device whose acceleration you would like to modify. A window with more acceleration control options and a graph will be displayed.



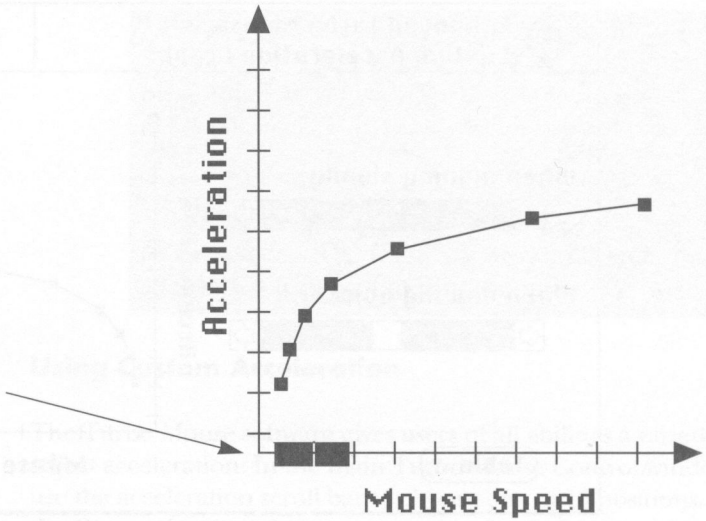
The Moving Slowly scroll bar adjusts the acceleration of the cursor when you are moving the mouse device slowly. Move the scroll bar to the right for faster acceleration or to the left for slower acceleration. Your changes take place immediately.

Moving Quickly acts the same as Moving Slowly but applies to when you are moving your device quickly.

The graph to the right shows an acceleration curve for whatever changes you make to the Moving Slowly and Moving Quickly scroll bars. Your changes are reflected as you make them.

You can also modify the graph directly. Click one of the small black boxes to drag the curve to a new level. The vertical axis represents the acceleration of your mouse movements, and the horizontal axis represents the speed at which the mouse device is being moved.

Drag the boxes up or left for faster cursor movement; drag down or right for slower cursor movement. Moving the end boxes is like moving the scroll bars while moving the other boxes moves the entire curve up and down. Spreading the boxes out evenly will give a smoother response.



The expanding black bar along the horizontal axis gives a measurement of how fast you are currently moving your mouse device.

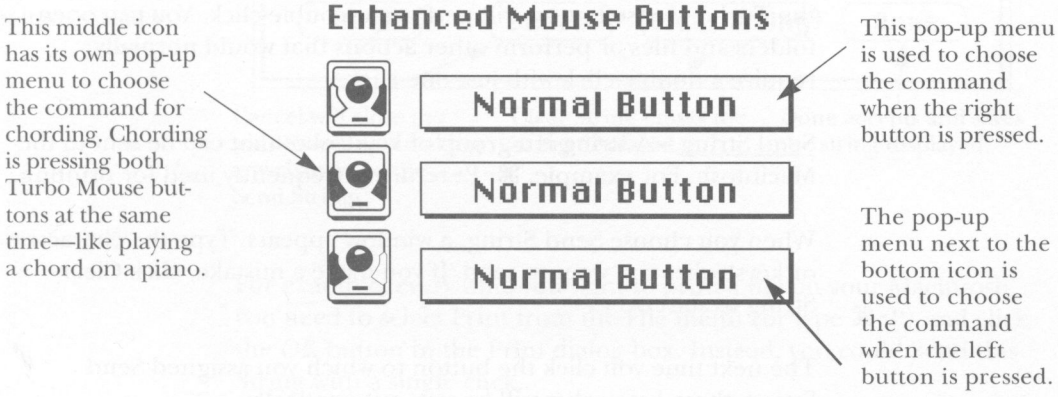
NOTE: When modifying Custom Acceleration, the acceleration scroll box in the Turbo Mouse Control window is automatically moved to the middle position.

Remember, to restore the Factory Standard Set at any time while experimenting with the Turbo Mouse software options: Choose Factory Standard Set from the Restore menu or type ⌘-R to return to the options that came with your Turbo Mouse trackball.

Clicking the Table button opens a window that allows experienced users to create and experiment with different types of acceleration curves. Appendix D describes this feature in more detail.

Enhanced Mouse Buttons

In the Enhanced Mouse Buttons section of the Turbo Mouse Control window, there are three icons. Each icon has a pop-up menu next to it for choosing one of the commands for that button.


This middle icon has its own pop-up menu to choose the command for chording. Chording is pressing both Turbo Mouse buttons at the same time—like playing a chord on a piano.
Enhanced Mouse Buttons
Normal Button
Normal Button
Normal Button
This pop-up menu is used to choose the command when the right button is pressed.
The pop-up menu next to the bottom icon is used to choose the command when the left button is pressed.

When you make changes in the Turbo Mouse Control program they take effect immediately. You do not need to restart your Macintosh. This allows you to experiment and quickly try new options.

Each of the Enhanced Mouse Buttons commands is defined below:

Normal Button – This command causes a Turbo Mouse button to behave like a normal mouse button. This is the Factory Standard choice for all buttons.

NOTE: Be sure to define at least one of the three buttons as a Normal Button. Macintosh operations require the use of a Normal Button.

Lock Button Down – This command locks the button down. This is useful whenever you need to drag, scroll, highlight large blocks of text, etc. It makes holding the button down and moving the ball at the same time unnecessary.

Click this button once to lock the button down, click either Turbo Mouse button to release.

If the Show Button command is on, you will see the indicator in the menu bar that the mouse button is down. For more information on the Show Button command, refer to Chapter 4: More Turbo Mouse Software Options.

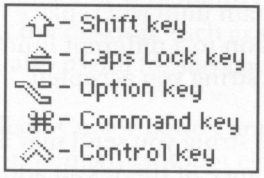
Send Double-Click – Double-clicking is frequently used for opening files, folders, applications, etc. With Send Double-Click, one click of the Turbo Mouse button will perform a double-click. You can open folders and files or perform other actions that would normally require a double-click with just one click.

Send String – A string is a group of keystrokes that can be sent to the Macintosh. For example, ⌘-P-return is frequently used for printing.

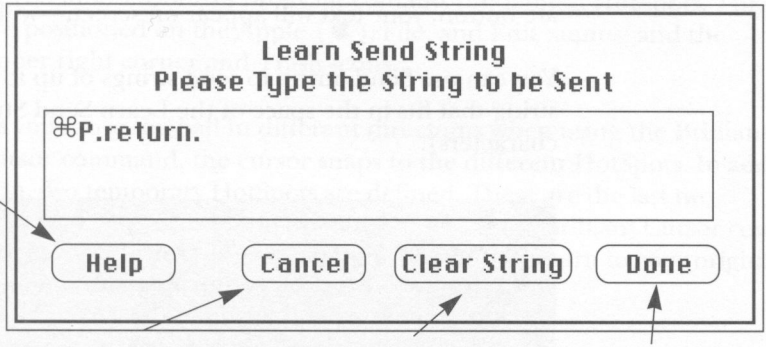
When you choose Send String, a window appears. Type the characters or keystrokes you want to send. If you make a mistake, click Clear String to start over.

The next time you click the button to which you assigned Send String, these keystrokes will be sent automatically.

You can use a single key or a combination of the modifier keys and another key, such as Shift, Option, Command, Control and Caps Lock. They are represented as symbols shown below. A dot is also inserted between each character for clarity.



Help opens the Help window with brief messages that define the Send String function and its special characters. (Typing ⌘-H adds to the string to be sent, so use this button instead.)



Cancel will close the window without making any changes to the Send String.

Clear String erases the string displayed.

Done accepts and saves the string displayed.

For example, every time you want to print a file on your Macintosh, you need to select Print from the File menu (or type ⌘-P) and click the OK button in the Print dialog box. Instead, you could Send this String with a single click.

1. Choose Send String from the pop-up menu next to the button you want to assign this command.

2. When the Learn Send String window appears, type ⌘-P and press the Return key.

3. Click Done.

4. The next time you click the button to which you assigned Send String, you will send a Print command. There will be no need to type Return or click OK.

The string you last accepted in the Learn Send String window will remain until you replace it. This allows you to temporarily switch the button to a different function and then switch back to sending the last string you accepted.

The string you send may also be a block of text you define. For instance, if there's an address you frequently type, you could assign this text to the Send String command. When you click the appropriate button, your text will appear on screen—with just a single click.

You can use Send String to send strings of up to 40 characters or any string that fits in the space of the Learn Send String window (up to 40 characters).

NOTE: You can use Send String to perform macros defined in a program like MacroMaker or QuickKeys. Macros allow you to perform several Macintosh commands with one keystroke. However, be sure to define Send String in the Turbo Mouse Control program before you set up the same key as a macro in your keyboard macro program.

If you already have macros set up, turn off your keyboard macros temporarily while you define Send String in the Turbo Mouse Control program. If you try to define a Send String that is already a keyboard macro without disabling your keyboard macro program, the keyboard macro may operate first.

Slow Cursor – When you click the Slow Cursor button, the cursor moves more slowly and precisely. Click either Turbo Mouse button to return to normal movement.

This temporary slow cursor enables very accurate pointing and placement of items. It is especially useful for placing objects at exact locations on screen. While the Slow Cursor command is active, you can press the arrow keys to move one pixel at a time.

Brilliant Cursor – The Brilliant Cursor command allows the cursor to jump to predefined points on screen. These points are known as HotSpots. (How to define your own HotSpots is described later in Chapter 4: More Turbo Mouse Software Options.)

The Brilliant Cursor command is very useful for quickly getting to frequently used areas on the desktop, such as the File and Edit menus and the Trash icon. It is also useful for navigating large monitors.

When you click the Brilliant Cursor button and move the ball, the cursor will jump to the predefined HotSpot closest in direction and distance to your ball movement. The Factory Standard Set of the Turbo Mouse Control program contains predefined HotSpots. These are positioned on the Apple ( ), File, and Edit menus, and the upper right corner and Trash icons.

As you move the ball in different directions when using the Brilliant cursor command, the cursor snaps to the different HotSpots. In addition, two temporary HotSpots are defined. These are the last two positions the cursor was in when you invoked the Brilliant Cursor command. They are temporarily defined so you can return to your original screen position more easily.

Click either button of your Turbo Mouse trackball to return to normal cursor movement.

To learn more about using Brilliant Cursor and defining your own HotSpots, refer to Chapter 4: More Turbo Mouse Software Options.

Axis-Only – The Axis-Only command locks your cursor movement to either an x- (horizontal) or y- (vertical) axis on screen. Click the Axis-Only button and the cursor will only move on the axis of your next ball movement, until a second Turbo Mouse button is pressed.

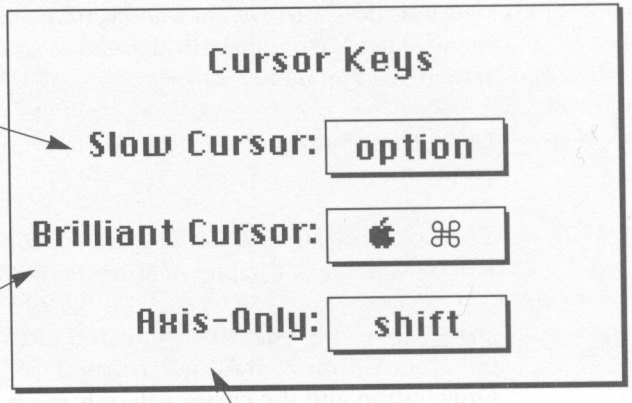
For example, if you click the button and move the ball right or left, the cursor will only move horizontally until another Turbo Mouse button is pressed. Likewise, if the Axis-Only button is clicked and the ball is moved up or down, the cursor will only move vertically until another button is clicked. Only the device that entered Axis-Only is affected. Other devices will move normally.

The Axis-Only command can be useful for placing objects in exact locations on screen, especially in drawing, graphics or page layout applications.

Cursor Keys

Cursor Keys are special commands that are executed when you hold down one of the modifier keys on your keyboard, Shift, Option, Control, Command, while simultaneously moving your mouse device. Cursor Key commands affect both Turbo Mouse and normal mouse devices.

The three commands are shown below: Slow Cursor, Brilliant Cursor, and Axis-Only. They are identical to the commands in the pop-up menus of the Enhanced Mouse Buttons. The difference is that when a command is assigned to a button, it is active until a second button is *pressed on the same device. When it is assigned to a modifier key,* the command is active only while you are pressing the modifier key, but it affects all devices.



Slow Cursor will cause very slow, precise movement of the cursor—you can even move one pixel at a time by pressing the arrow keys while Slow Cursor is activated.

Brilliant Cursor will snap the cursor to predefined HotSpots on the screen.

Axis-Only will restrain cursor movement to either the horizontal or vertical axis.

To use any of the Cursor Key commands, simply hold down the appropriate modifier key and move the ball. When you release the modifier key for any of these commands, the command is stopped.

NOTE: It can be useful to assign Cursor Key commands to modifier keys that have their own special functions in certain applications. However, be aware that both actions will happen together. This may be confusing and make it appear that either the Cursor Key or the application features are not working. When in doubt, try choosing a different key.

Combining Commands

It is possible to combine a Cursor Key command with an Enhanced Mouse Button command.

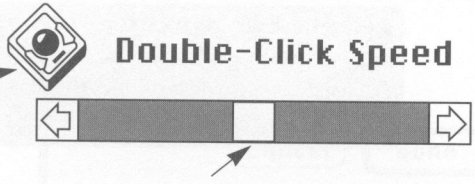
To do this, one command must be assigned to an Enhanced Mouse Button and the other to a Cursor Key. First hold down the button, then the particular modifier key, and move the ball. You can experiment with combinations to find effective ones for you.

One combination that is especially useful for graphics and CAD work combines Lock Button Down and Slow Cursor. Simply select an object, and lock the Turbo Mouse button down. Then use the Slow Cursor modifier key, roll the ball or press the arrow keys on your keyboard. The object moves pixel by pixel on screen. Click either Turbo Mouse button to release it.

Double-Click Speed

The Double-Click Speed control determines how easy it is to double-click. For example, if Double-Click is positioned to the left, you can take your time pressing the button twice in a row and the Macintosh still interprets your action as one double-click, not two single clicks. However, if Double-Click is positioned to the right, you must click twice in quick succession for the Macintosh to interpret it as a double-click.

To test your Double-Click speed setting, double-click the Turbo Mouse icon. If you click fast enough, it will blink.



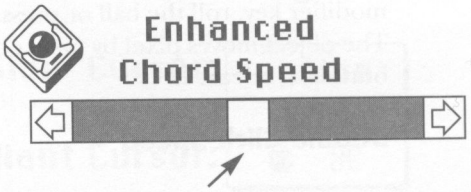
Moving the scroll box to the left allows a longer delay between clicks. Moving to the right requires the two clicks be closer together.

To test your position, double-click the Turbo Mouse icon. When the buttons on the Turbo Mouse icon flash, you have a proper adjustment. If they do not flash, the setting is not right for your normal Double-Click Speed. Move the scroll box, and test until you find the speed that's comfortable for you.

NOTE: If you position the Double-Click Speed scroll bar too far left, your two single clicks may be interpreted as a double-click. Similarly, if the scroll bar is positioned too far right, your double-click may not be recognized.

Enhanced Chord Speed

Using Enhanced Chord Speed helps you adjust the ease with which you chord. Chording is pressing both buttons at once—like playing a chord on a piano. When trying to chord, you might not press both buttons at exactly the same time. In fact, if there is a long delay between both buttons being pressed down, your action may not be recognized as a chord, but rather as one button, then the other.



Moving the scroll box to the left makes it easier to chord by allowing a longer delay between clicks to be interpreted as one chord. It will also slow down the recognition of a normal button. Conversely, moving the scroll box to the right decreases the chord recognition time, making it more difficult to chord. This means it will be less likely that you will accidentally chord when pressing first one button, then the other.

Remember, to restore the Factory Standard Set at any time while experimenting with the Turbo Mouse software options: Choose Factory Standard Set from the Restore menu or type ⌘-R to return to the options that came with your Turbo Mouse trackball.

Chapter Four: More Turbo Mouse Software Options

This chapter describes some of the other unique and powerful Turbo Mouse software options in greater detail. You'll learn how to define your own HotSpots to take full advantage of the Brilliant Cursor command as well as access shortcuts and helpful features such as the Mini Control Panel and Show Button command. You'll also learn how to save these options for individual applications as you create Application Sets.

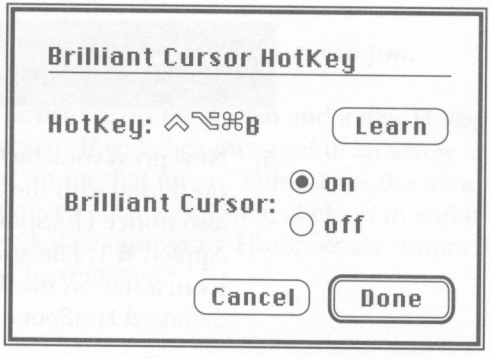
Brilliant Cursor and Defining HotSpots

In Chapter Three, you learned how to use the Brilliant Cursor command to snap from point to point on the screen effortlessly. The Factory Standard Set contains predefined HotSpots for popular locations on screen, such as the Apple ( ), File, and Edit menus, and the upper right and Trash icons. However, with the Turbo Mouse program you can also assign your own HotSpots to points you frequently access on screen.

Before defining your own HotSpots, you first need to assign a Brilliant Cursor HotKey. This HotKey will pop up the Brilliant Cursor HotSpot definition window so that you can define HotSpots.

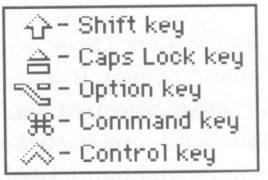
To define the Brilliant Cursor HotKey:

1. Choose Brilliant Cursor from the Options menu. The following window appears:



2. Click the Learn button and type the exact key combination that you want to be the HotKey. If you have a keyboard that supports function keys, you can also use one of these. After you have entered it, your choice appears next to HotKey in the window.

   You can use a single key or a combination of the modifier keys and another key, such as Shift, Option, Control, Command, or Caps Lock. They are represented by the symbols shown below:

   Modifiers must always be used with another key. For example, the Factory Standard is Control-Option-Command-B.

3. Click the on button to turn the HotSpot definition feature on.

   The Brilliant Cursor command will work whether the HotSpot definition feature is turned on or off.

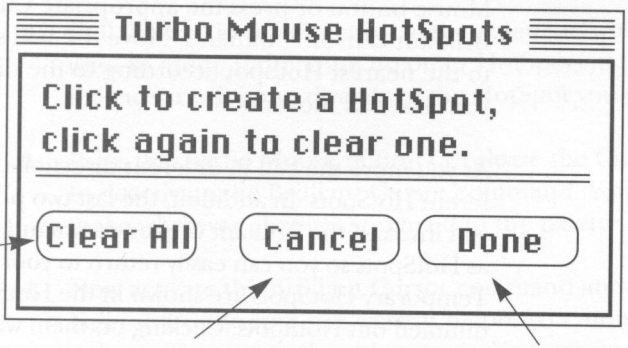
4. Click Done to save your HotKey definition.

Radius Pivot display users: Do not rotate the monitor when the Brilliant Cursor HotSpot definition window is active.

5. Now press your Brilliant Cursor HotKey and you will be presented with the HotSpot definition window. You will also notice HotSpot icons on the screen: arrows on the Apple ( ), File and Edit menus as well as the upper right icon; a star on the Trash icon. These are the Factory Standard HotSpots.

If you have already used the Brilliant Cursor command, you will also notice up to two additional dimmed HotSpots. These are the last two positions the cursor was in when you invoked the Brilliant Cursor command. They are temporarily defined so you can easily return to your original screen position.

NOTE: You can always return to the Factory Standard HotSpots by typing ⌘-R. This restores the entire Factory Standard Set. You can also choose Cancel in the HotSpots definition window to cancel changes to the HotSpots, but not to change the other options in the Set.



Clear All removes all HotSpots.

Cancel closes the HotSpots definition window, leaving the HotSpots as they were before the window was opened.

Done closes the HotSpot definition window. If you have made any changes Done accepts your changes.

To define your own HotSpots:

1. Activate the HotSpots definition window.
2. Click anywhere on the screen and a new HotSpot icon will appear. If you click on a menu, an arrow icon will appear under that menu. This means the menu is the HotSpot. To clear a HotSpot, click on it, and it will be removed. The temporary HotSpots are dimmed out and cannot be removed.

In general, the best HotSpots are areas to which you go most often. After time, you will discover the most strategic points for you. You can define a maximum of 20 HotSpots for each Application Set.

> **NOTE:** HotSpots are defined by their position on the screen, not by particular windows on the screen. Therefore, fixed items that do not change are the best strategic choices.

3. Click Done and your new HotSpots will be recorded.

To try the HotSpots you just defined, click the appropriate Turbo Mouse button or press the appropriate Cursor Key to invoke the Brilliant Cursor command. Move the ball slowly. The cursor will snap to the nearest HotSpot according to the direction and distance of your last ball movement.

As you move the ball in different directions, the cursor snaps to the different HotSpots. In addition, the last two positions of the cursor when you invoked the Brilliant Cursor command will be temporarily defined as HotSpots so you can easily return to your original screen position. Temporary HotSpots are shown in the HotSpot definition window as dimmed out HotSpots. Clicking on them will not remove them.

Using Brilliant Cursor for Specific Applications

One of the common uses for Brilliant Cursor is for choosing items on a palette or to access tear-off menus that remain on the screen. In a program like PageMaker®, there are several palettes that often remain on screen for changing styles, colors, and tools. Defining a HotSpot at the top of each palette would allow you to jump there very quickly and easily from anywhere on screen. On a large screen monitor, where elements can be far apart, this is a fast and efficient way to work.

To create a new HotSpot for a palette:

1. Load the program and arrange the palettes as you like them on the screen.

2. Press the HotKey you have chosen to invoke the HotSpot definition window. The Factory Standard is Control-Option-Command-B.

3. Click on the palette to which you want to jump. A HotSpot icon will appear on the spot you clicked.

4. Click Done and your new HotSpot will be recorded.

To use the new HotSpots:

1. Press the appropriate Turbo Mouse button or Cursor Key to activate Brilliant Cursor.

2. Roll the ball in the direction of the palette to which you want to jump. If there are no other HotSpots in between, the cursor will jump directly to the HotSpot you defined.

3. Press the Turbo Mouse button or release the Cursor Key to deactivate the Brilliant Cursor command. You can make whatever changes you need to the palette.

4. Now activate the Brilliant Cursor command and roll the ball toward the spot you were at before you moved to the palette. The cursor should jump to the temporary HotSpot at which you started.

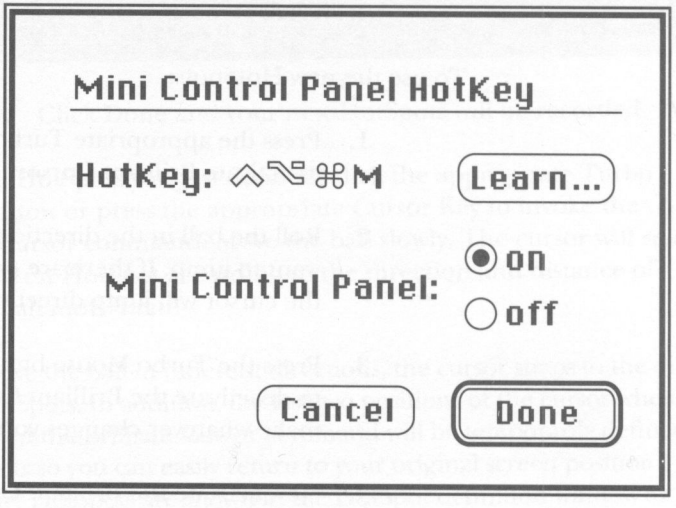
5. Press the Turbo Mouse button or release the Cursor Key to deactivate the Brilliant Cursor command and resume your work. You will always be able to quickly jump back to this palette at any time.

Mini Control Panel

The Turbo Mouse program comes with a Mini Control Panel for quick and easy access to Turbo Mouse commands. With the Mini Control Panel you can modify the basic Turbo Mouse commands from within any active program without launching the Turbo Mouse program. However, you must use the full control panel to customize acceleration, to change HotKeys, or to create new Application Sets. In addition, there is no Help command in this window.

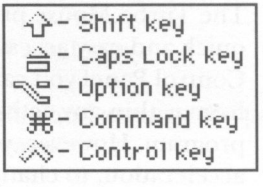
You can activate the Turbo Mouse Mini Control Panel with a HotKey that you define. To do this:

1. Choose Mini Control Panel from the Options menu. You will be presented with the Mini Control Panel HotKey window (similar to the Brilliant Cursor HotKey window).



2. Click Learn to define the HotKey that you want to invoke the Mini Control Panel. When you have entered it, your HotKey appears next to HotKey in the window.

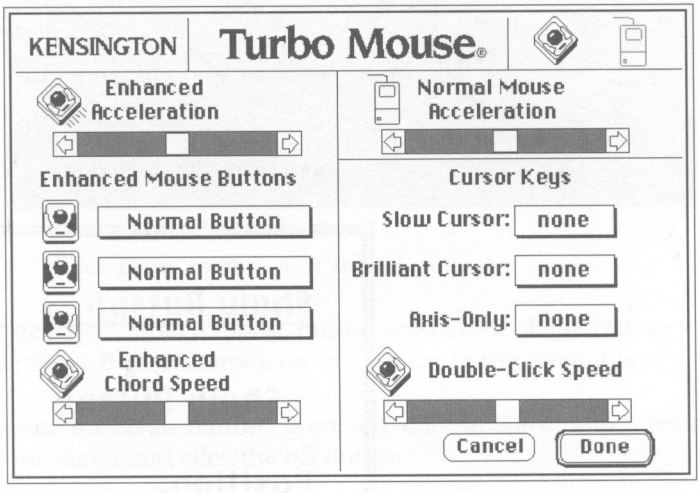
Generally it is a good idea to use modifiers (Shift, Option, Control, Command or Caps Lock) with another key to avoid accidentally popping up the window. For example, the Factory Standard is Control-Option-Command-M. The modifier keys are represented by the following symbols:



3. Click the on button to enable the Mini Control Panel.

4. Click Done or press Return to save your Mini Control Panel HotKey definition.

5. Press your Mini Control Panel HotKey and you will be presented with the Mini Control Panel window.



When you activate the Mini Control Panel window, you will have access to top-level Turbo Mouse commands: Acceleration, Enhanced Mouse Buttons, and Cursor Keys. However, you should use the full Turbo Mouse Control application to: access the Help command; work with sets; create custom acceleration; restore sets; or modify HotKeys.

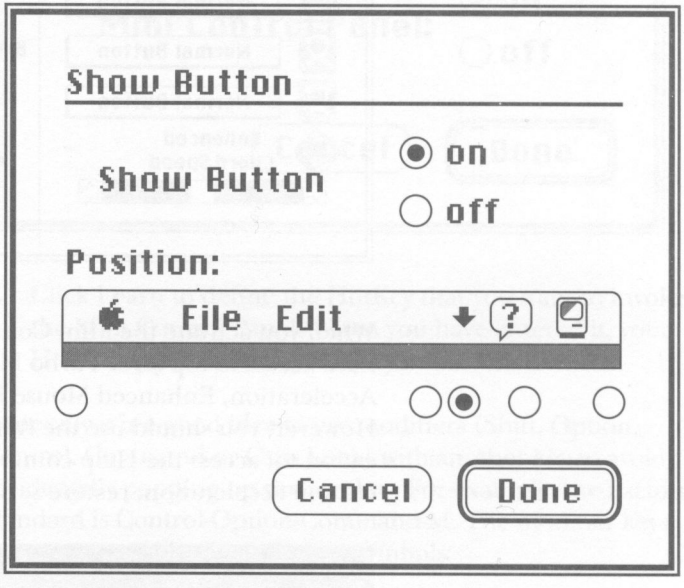
System 7 users can create an Alias of the Turbo Mouse application and place it in the Apple menu folder in the System Folder. This gives access to the full Turbo Mouse Control application from the Apple menu.

The Show Button Command

The Show Button command is an on-screen indicator that lets you know a mouse button is being held down. Whenever a button is pressed, a small arrow icon appears in the menu bar. You define the position on the screen where you would like the indicator to appear. This is useful when you have activated the Lock Button Down command as the indicator remains visible on the menu bar when the mouse button is down.

To activate the Show Button command:

1. Choose Show Button from the Options menu. You will be presented with the following Show Button definition window:



2. Click the on button to activate Show Button.

3. To select the area in the menu bar where you would like the icon to appear, click the appropriate radio button below it.

A small arrow icon appears as a sample of what will appear in the menu bar whenever a mouse button is being held down.

NOTE: Try to select a position on the menu bar that is not used by other applications.

For example, if you are using AppleShare, you will not want to select the upper left corner as the upper left corner is used to indicate AppleShare activity.

If the same position on the menu bar is used for two purposes, the menu bar may not be updated correctly and may look strange. In this case, try one of the other positions.

4. Click Done to save your selection.

Now whenever you hold a mouse button down, or lock the button down, the Show Button arrow icon will appear in the menu bar.

To deactivate the Show Button command, choose Show Button from the Options menu and click the off button.

Creating and Using Individual Application Sets

With the Turbo Mouse program, you can create independent and custom sets of Turbo Mouse commands for particular applications. A Set is a combination of Turbo Mouse software options. You can define individual Sets to include any and all Turbo Mouse commands: pre-defined Brilliant Cursor HotSpots; Enhanced Mouse Button and Cursor Key combinations; and Acceleration, Double-Click, and Enhanced Chord Speed adjustments.

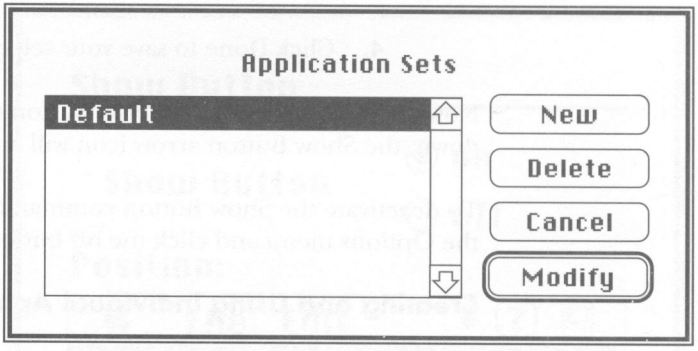
The name of the Set currently being used will be displayed in the title bar of the Turbo Mouse Control window. These Sets will automatically switch when you change to the corresponding applications.

NOTE: In most cases the Active Set will be called "Default." It will always be the Active Set for the Finder, Turbo Mouse Control and all programs that do not have their own Custom Sets. This makes it easier to identify and edit Sets defined for other programs.

To modify an existing Set:

1. Choose Application Sets from the Options menu.

2. Highlight the name of the Set you would like to change and choose Modify (or press the Return key). If you have not defined any other Sets, the Default Set will automatically be highlighted.



To create a new Set:

1. Click New, and you will be asked to select an application.

2. Find the application program for which you would like to define the new Set and click Add.

NOTE: The Turbo Mouse program does not alter your application program in any way. It reads only the file name of the program, which is used to identify when the application is active.

3. You will return to the Application Sets window, and the application you just selected will appear highlighted in the list. You can create a maximum of 30 sets.

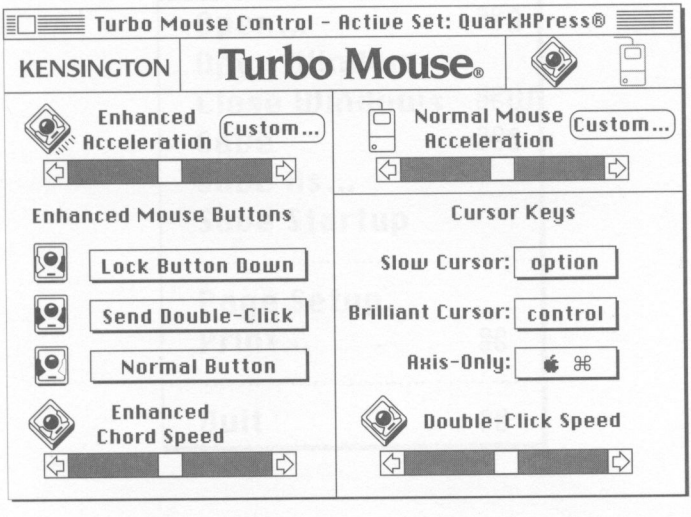
4. New Sets start out with all options the same as the Default Set. You can now modify the Turbo Mouse options to your liking.

The current Active Set is always shown in the title bar of the Turbo Mouse Control window. To switch the currently Active Set, first go to the Application Sets window. Double-click one of the Sets you previously defined, or select that Set and click the Modify button or press Return.

NOTE: Specific Application Sets will automatically switch when you load or switch to that application. You need only switch Sets manually when you are modifying them.

Here's an example: If you are using a page layout application, such as QuarkXPress®, you might want to create a custom Set with slower acceleration speed for greater accuracy. You might also want to define one of the Cursor Keys with the Axis-Only command to easily align objects horizontally or vertically. This graphics application could also have its own Brilliant Cursor HotSpots.

A sample Application Set for QuarkXPress is shown below:



When you are creating HotSpots for a specific Application Set, be sure to first create the Set. Then load the application and bring up the HotSpots definition window to define HotSpots for that Application Set.

Also, be sure to choose Save Startup in the Turbo Mouse Control program after you have defined new HotSpots.

When you switch to another application, the Turbo Mouse program automatically switches to the Set you created for that application. This Set might have a completely different combination of Turbo Mouse software options.

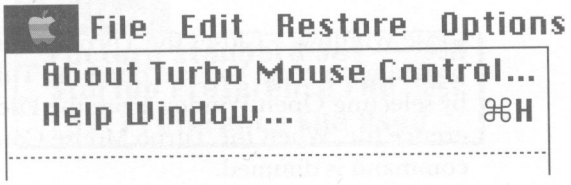
While this Application Set is active, any changes you make to HotSpots or commands using the HotSpot definition window or Mini Control Panel, will apply only to this Application Set.

Remember, to restore the Factory Standard Set at any time while experimenting with the Turbo Mouse program: Choose Factory Standard Set from the Restore menu or type ⌘-R to return to the options that came with your Turbo Mouse trackball.

Chapter Five: Menu Commands

This chapter provides a brief description of the different functions available in the menus of the Turbo Mouse application.

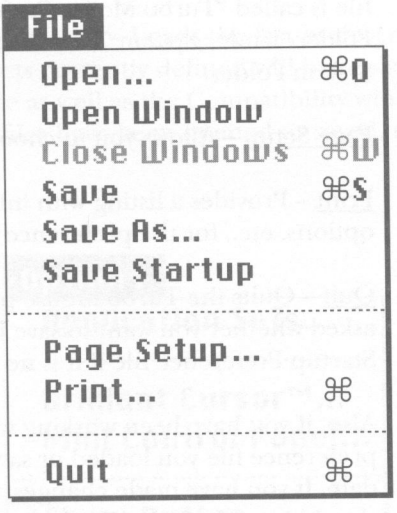
Apple Menu



About Turbo Mouse Control – Gives you the version numbers of the Turbo Mouse application program, the Turbo Mouse Startup program and your Turbo Mouse hardware.

Help Window – Opens the Turbo Mouse Control Help window. When you move the cursor over items for which Help is available, information about the item will appear in the Help window.

File Menu



Open – Opens a Turbo Mouse preference file. A preference file contains all the Sets you have defined at the time it was saved.

Open Window – Opens the Turbo Mouse Control window after it has been closed. The Set currently in use by the Turbo Mouse Startup program is displayed in the title bar of the window. When the Turbo Mouse Control window is open, this command is dimmed.

Close Windows – Closes the Turbo Mouse window(s), but leaves the program running. You can open the Turbo Mouse Control window by selecting Open Window from the File menu or by opening a preference file. When the Turbo Mouse Control window is closed, this command is dimmed.

Save – Saves all the Sets you have defined in the open preference file. Use Save Startup to save to the preference file that is loaded when you start your Macintosh.

Save As – Saves all the Sets you have defined in a named preference file. You can modify and create new preference files for different users, computers, etc., and save them with individual names for those uses.

Save Startup – Saves all the Sets you have defined in the preference file that is loaded each time you start your Macintosh. This preference file is called "Turbo Mouse Preferences," and is located in the System Folder. Under System 7, it is located in the Preference folder in the System Folder.

Page Setup – Allows you to choose options for printing.

Print – Provides a listing with information about the Sets, tables, options, etc., for the preference file that is currently open.

Quit – Quits the Turbo Mouse program. Before quitting, you may be asked whether you want to save the current preference file as the Startup Preference file if it is no longer up to date.

Also, if you have been working with different preference files, the last preference file you loaded or saved will be checked to see if it is up to date. If you have made changes, you will also be asked if this file should be updated.

Edit Menu

The Edit Menu is provided for system compatibility. It is not used by the Turbo Mouse software.

Restore Menu

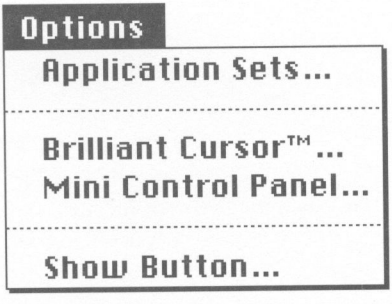
You can use the Restore Menu to undo changes you have made while choosing Turbo Mouse options.

Factory Standard Set – Replaces the current Turbo Mouse options with the Factory Standard Set. Only the Set that is currently active is affected.

Startup Preference File – Loads the preference file you saved with the Save or Save Startup command. All Sets currently defined are replaced with the ones in the Turbo Mouse Preference file as well as the Compatibility window information. If there is no Turbo Mouse Preference file in the System Folder, this command will be dimmed.

Last Preference File Used – Loads the last preference file you loaded or saved. All Sets currently defined will be replaced with those in the preference file as well as the Compatibility window information. If no preference files have been opened or saved, this command will be dimmed.

Options Menu



Application Sets – Allows you to create specific Sets of Turbo Mouse options for specific applications. The name of the Set currently being used is displayed in the title bar of the Turbo Mouse Control window. Normally this is "Default." However, you can create new Sets that will automatically be used whenever the respective application is the top window.

For more information on modifying and creating new Sets, see Chapter 4.

Brilliant Cursor – Allows you to define a HotKey for activating the HotSpot definition window. Using the appropriate HotKey, you can conveniently pop up the HotSpot definition window at any time without disturbing the program you are using.

For more information on the Brilliant Cursor command as well as defining your own HotSpots, read Chapters 3 and 4 again.

Mini Control Panel – Allows you to set a HotKey for activating the Mini Control Panel from within any program. This menu command also allows you to turn the Mini Control Panel on or off.

See Chapter 4 for detailed information about the Mini Control Panel.

Show Button – Enables you to turn the mouse button down indicator on or off. It also lets you define the position in the menu bar in which you'd like the Show Button arrow icon to appear to remind you that the mouse button is down.

See Chapter 4 for detailed information about the Show Button command.

Chapter Six: Maintenance

The Turbo Mouse trackball was designed to require very little maintenance. However, since any device that is in contact with human hands will pick up dirt and oils, you will want to clean your unit periodically. If you find the ball is not moving as smoothly as usual, your Turbo Mouse trackball may be due for a cleaning.

To clean your Turbo Mouse device, first remove the ball and wipe it with a lint free rag and mild cleaning solution. Be sure to dry the ball completely before returning it to its housing. The center indentation or crater where the ball normally resides should be wiped out with a clean lint free cloth to prevent build up of dust or debris. The rollers on which the ball rests should be gently cleaned with a moist alcohol swab. Avoid scratching the side of the bearing or dripping excess alcohol into the unit.

If you continue to have problems with your Turbo Mouse trackball refer to the Troubleshooting section in Appendix A.

Appendix A: Troubleshooting

Kensington is committed to bringing you quality customer service and support in a timely, courteous manner. We expect you to receive the maximum benefit from Kensington products.

If you are having problems with your Turbo Mouse hardware or software, first review the suggestions below to help narrow down what the problem is. Kensington's Technical Support staff is also available if you continue to experience difficulties. To contact Kensington, refer to the end of this section.

Hardware Problems

- Be sure not to connect or disconnect ADB input devices when the Macintosh is turned on.

- Be sure that the cables do not have bent pins and that they are firmly seated in the ADB ports.

- If the cursor is not moving smoothly, try cleaning your Turbo Mouse trackball following the directions in Chapter 6.

Software Problems

- Try using the Command-R (⌘-R) option in the Restore menu to restore the Turbo Mouse software options to the Factory Standard Set.

- Be sure that the Turbo Mouse Startup file is in the System Folder when the Macintosh is started. Also, be sure you have not changed the name of the file since starting the Macintosh. Make sure there are no other mouse device extensions (inits, control panels, etc.) in the System Folder. Be sure that the Turbo Mouse Startup or Turbo Mouse Basics icon is displayed during Macintosh startup.

- The Turbo Mouse Control application and Turbo Mouse Basics cannot be used at the same time. If you want to use the Turbo Mouse Control application, make sure Turbo Mouse Basics is removed. If you want to use Turbo Mouse Basics, be sure the Turbo Mouse Startup file is removed.

- Try pressing the T-key while starting your Macintosh to inhibit the Turbo Mouse Startup file from loading.
- Try turning off the HotSpot definition, Mini Control Panel and Show Button options. Then restart your Macintosh.
- Try removing the Turbo Mouse Preferences file from the System Folder.
- Remove all extensions, inits, control panels, etc. from your System Folder. Then drag them back into the System Folder one at a time starting with the Turbo Mouse Startup file. Test to see if your problem reoccurs before adding each item.
- If your buttons feel sluggish, try moving the Enhanced Chord Speed scroll bar to the right.
- Try reinstalling the programs from the original Kensington floppy disk.
- If you are an A/UX user, be sure you have not tried to use the Turbo Mouse software.

Kensington's Technical Support department is also available for assistance. If you call please have your original Turbo Mouse software disk available, and if possible, be at your Macintosh.

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Appendix B: Turbo Mouse Utilities

The Turbo Mouse Utilities folder contains additional files and programs that may be helpful to certain Turbo Mouse owners. However, most users will probably not need to access this folder.

Turbo Mouse Basics

If you are starting your Macintosh from a floppy disk, or you have limited disk space or RAM, you may find that the Turbo Mouse Startup and Turbo Mouse Control programs are too large to fit on your Macintosh.

The Turbo Mouse software comes with a minimal version of the Turbo Mouse Control program called Turbo Mouse Basics. It uses only 10K on your startup disk and less than 1K of internal memory (RAM).

Turbo Mouse Basics is located on the Turbo Mouse software disk. To install the Turbo Mouse Basics program:

1. Write protect your original Turbo Mouse software disk and insert the disk into your computer.

2. Drag the Turbo Mouse Basics icon onto the System Folder on your startup disk. (The startup disk is the one in the upper right corner of your desktop.)

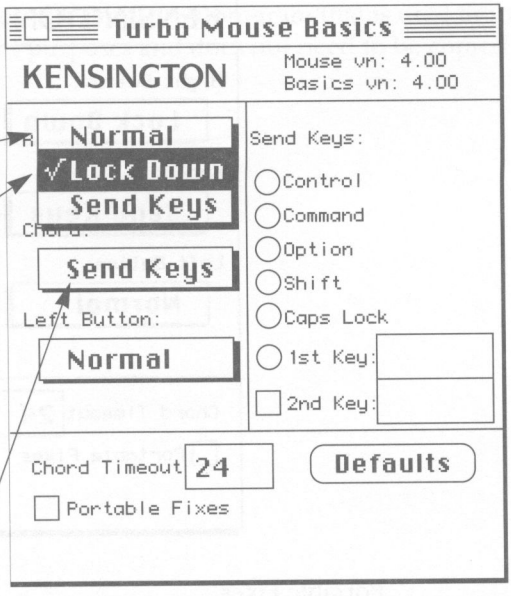
   If you are using System 7, respond yes when asked if you wish to put the Turbo Mouse Basics file into the Control Panels folder.

3. Follow the directions for installing the Turbo Mouse hardware in Chapter 2. Once it is installed, restart your Macintosh.

NOTE: You may use either the Turbo Mouse Startup or the Turbo Mouse Basics programs, but not both at the same time. The Turbo Mouse Basics program may be used at the same time as the old Turbo Mouse Control Panel or Apple mouse control panel software. These allow you to change the acceleration. The Turbo Mouse Basics program does not.

To change Turbo Mouse Basics options:

1. Choose the Control Panel command from the Apple ( ) menu.
2. Select the Turbo Mouse Basics icon. System 7 users should double-click this icon.
3. Choose the action to occur when you press the left button, right button, and when chording the Turbo Mouse buttons. (Chording is pressing both buttons down at the same time, like playing a chord on a piano.)



Normal – Sends a normal button command.

Lock down – locks the button down.

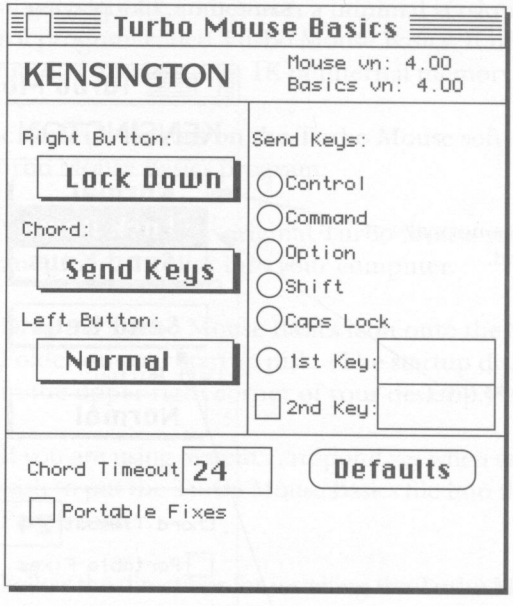
Send keys – This allows sending one or two keys. The radio buttons on the right are used to select the first key. Underneath, the checkbox allows sending a second key. With send keys, things behave just as if you held a key down on the keyboard, i.e., the key will be repeated.

Chord Timeout

Chord Timeout helps you adjust the chord recognition speed—the timing of your chording action for better interpretation by the Turbo Mouse software. When you are trying to press both Turbo Mouse but-

tons at once to chord, you might not hit them at exactly the same time. In fact, if there is a long delay between both buttons being pressed down, your action may not be recognized as a chord.

The chord recognition speed is the length of time the Turbo Mouse hardware will wait for a second button to be pressed while a first button is pressed down to determine that a chord has occurred. Most users find values near 20 are best. To make it easier to chord, increase the number. Decrease the number to make it less likely you will accidentally chord when pressing first one button, then the other.



Portable Fixes

The Portable Fixes checkbox is for users of Apple's Portable and PowerBook computers. It normally is not selected. In order to conserve battery life, your portable computer can be put to sleep after a pre-defined period of inactivity. When the computer re-awakens, the Turbo Mouse Basics options will not be active.

When Portable Fixes is selected, the Turbo Mouse Basics Control Panel will automatically resend the startup options to the Turbo Mouse trackball after your Macintosh Portable returns from Sleep.

When you change the Portable Fixes option, you must restart your Macintosh for the change to take effect.

Acceleration
You can use either the Apple Mouse or old (original) Turbo Mouse Control Panels to change the acceleration of the Turbo Mouse trackball when the Turbo Mouse Basics Control Panel is in use.

Defaults
Clicking the Defaults button restores the Factory Standard options that came with your Turbo Mouse trackball.

Turbo Mouse Test

Turbo Mouse Test is a simple test program that is used mostly for technical support purposes and does not need to be copied to your hard disk.

Appendix C: Special Notes for A/UX Users

The Turbo Mouse trackball is fully A/UX compatible. Without Turbo Mouse software, your Macintosh will recognize the Turbo Mouse trackball as an A/UX input device. A/UX uses the arrow keys on the keyboard for the right and middle buttons required by many A/UX applications.

When used in A/UX, the Turbo Mouse buttons work as follows:

> Left button sends a normal button.
> Right button sends a right arrow (right button).
> Chording (pressing both buttons at once) sends a left arrow (middle button).

Alternatively, you can modify the Turbo Mouse trackball to use the MacX alternative button options:

> Left Button sends normal button.
> Right Button sends Command-right arrow.
> Chord sends Command-left arrow.

The Turbo Mouse trackball can also be modified so both buttons send a normal button.

If you need more information on modifying the Turbo Mouse trackball to use the MacX alternative, or normal buttons settings, please contact Kensington Technical Support.

Appendix D: Custom Acceleration Tables

When you adjust Enhanced Acceleration in the Turbo Mouse Custom Acceleration window, you are actually adjusting the dynamic acceleration of your cursor movement. This means that acceleration will change according to the speed you move your mouse device. Moving the device slowly causes no acceleration of your cursor; moving the device quickly causes the cursor to accelerate and move more rapidly.

The Acceleration scroll bar in the Turbo Mouse Control window has 10 positions. You might have moved the scroll box all the way to the left, causing no acceleration. No acceleration means it takes exactly one count of device ball movement to produce one pixel of cursor movement on screen.

When the acceleration scroll box is positioned one notch from the left, this is the lowest acceleration.

If the scroll box is in the middle position, the acceleration is more balanced. You would find it easy to pick one pixel on screen and move very quickly across a large screen.

When you move the scroll box all the way to the right, your cursor moves very quickly, even across very large screens.

Acceleration is controlled by a table of values used by the Turbo Mouse Startup. Most users will not need to modify this table, however, experienced users may want to experiment, entering new values to try truly different acceleration curves.

To do this, click the Table button in the Turbo Mouse Custom Acceleration window. The following window appears:

Custom Accel Table - Active Set: Default

Enhanced Turbo Mouse
Custom Acceleration Table:

Thresholds: [Build...] [Compatibility...]

1	2	3	5	7	10	14	20	30	43	63	91

Multipliers:

2	2	3	4	4	5	6	6	7	8	9	9
4	5	6	8	9	11	12	13	15	16	18	19
6	8	10	12	14	16	18	20	22	24	27	29
8	10	13	16	19	22	24	27	30	33	36	38
10	13	17	20	24	27	31	34	38	41	45	48
12	16	20	24	28	33	37	41	45	49	54	58
14	18	23	28	33	38	43	48	53	58	63	67
16	21	27	32	38	44	49	55	60	66	72	77
18	24	30	36	43	49	55	62	68	74	81	87

Before entering values in the Table, you will need a basic understanding of the Turbo Mouse movement data. For every inch of ball movement, the Turbo Mouse trackball reports 200 counts in either axis to the Turbo Mouse Startup program. A normal mouse reports 100 counts for each inch of ball movement. Periodically, each device sends a sample report to the Macintosh of how far the ball has moved since the last sample.

The Thresholds line of the Custom Acceleration Table contains trigger levels or thresholds. Sample counts reported to the Turbo Mouse Startup program are compared to these thresholds. Then a multiplier column is chosen at the smallest threshold greater than or equal to the count reported. There is a separate Acceleration Table used for each resolution mouse; one for normal mouse devices, and one for the Turbo Mouse device.

Each line of the Multipliers table represents the multipliers used for a particular position of the Acceleration scroll bar in the Turbo Mouse Control window. The fifth line is chosen when the Acceleration scroll bar is located in its middle position.

The numbers in the Multipliers table are multiplication factors. Each multiplication factor has an implied decimal point before the last digit, i.e. 13 represents 1.3, 117 represents 11.7, etc.

To achieve acceleration, the Turbo Mouse Startup program:

1. Takes a sample count of the actual Turbo Mouse ball movement.

2. Performs a smoothing algorithm and determines the Threshold level column on the acceleration table.

3. Finds the multiplication factor at the intersection of the appropriate line of the Multipliers table and the Threshold column.

4. Multiplies the sample count by that multiplication factor.

5. Moves the cursor the resulting number of pixels on screen.

When the modified count received by the application is higher than the actual sample count, the cursor on screen moves at an accelerated rate.

For example:

Custom Accel Table - Active Set: Default

Enhanced Turbo Mouse
Custom Acceleration Table:

Thresholds: Build... Compatibility...

1	2	3	5	7	10	14	20	30	43	63	91

Multipliers:

2	2	3	4	4	5	6	6	7	8	9	9
4	5	6	8	9	11	12	13	15	16	18	19
6	8	10	12	14	16	18	20	22	24	27	29
8	10	13	16	19	22	24	27	30	33	36	38
10	13	17	20	24	27	31	34	38	41	45	48
12	16	20	24	28	33	37	41	45	49	54	58
14	18	23	28	33	38	43	48	53	58	63	67
16	21	27	32	38	44	49	55	60	66	72	77
18	24	30	36	43	49	55	62	68	74	81	87

1. Assume that the Turbo Mouse Acceleration scroll bar is adjusted to the middle position (the fifth row of the Multipliers table).

2. If the Turbo Mouse Startup program receives a sample of 9 counts, it will use the column with a heading of 10. The fifth row and the Threshold column under 10 intersect at the multiplication factor of 27 (representing 2.7).

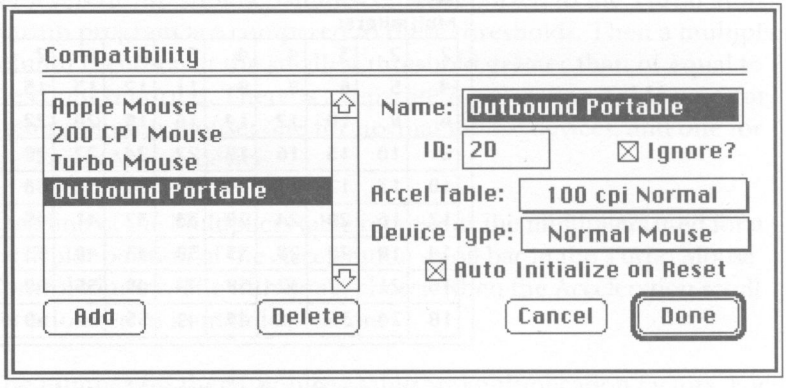
3. The Turbo Mouse driver multiplies the count of 9 by the multiplication factor of 2.7 and moves the cursor 24 pixels on screen.

Build

The Build command helps you quickly produce linear acceleration tables. The Initial Value is used by the Build command for the table entry in row 1, column 1 of the Multipliers table. Each entry is multiplied by the Increment and added to itself to produced the next entry on its right. The Row Increment is added to the first entry in each row to produce the first entry of the next row.

Compatibility

The Compatibility window is used to provide the Turbo Mouse software with information about other devices that are connected to the ADB. It should be used only for input devices that are incompatible with the Turbo Mouse software.



Each type of ADB device defined in the Turbo Mouse software is displayed. The first three entries in the table are Factory Standard and may not be modified.

When you select a device from the list, the information known about that device is displayed on the right.

The Handler IDs are hexadecimal numbers between 0 and FF that have been assigned to ADB devices by Apple Computer Inc. to uniquely identify an ADB device. To get the Handler ID for an incompatible input device, you may have to contact Technical Support at the device's manufacturer.

If you want the Turbo Mouse software to ignore a device type, check the ignore box. ADB devices that are not 100% compatible with normal Apple mouse devices should have the ignore box checked. Compatible devices that are ignored by Turbo Mouse Software may be controlled using the Apple Mouse Control Panel.

To select the acceleration table that the Turbo Mouse software will use with the selected type of device, choose either the Enhanced or Normal Mouse acceleration table.

You may also select the data format sent by the selected device type from the pop-up menu. For normal Apple mouse devices and compatibles, this should be set to normal mouse. The Turbo Mouse trackball has its own data format.

Auto Initialize on Reset

The Factory Standard for the Auto Initialize on Reset checkbox is selected. When activated, the Turbo Mouse Startup will automatically attempt to reinitialize the ADB chain if it is reset.

When the Auto Initialize on Reset checkbox is deselected and the Turbo Mouse software detects an ADB reset, the Turbo Mouse Startup will alert you with options to initialize the ADB chain, suppress additional warnings, or skip only the warning displayed on the screen. If you have an older Macintosh with older system software, you may want to leave the Auto Initialize on Reset checkbox deselected.

Appendix E: FCC Information

Federal Communications Commission Radio Frequency Interference Statement

The Kensington Turbo Mouse trackball, Version 4.0 has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

In order to meet FCC requirements, all connections to equipment using the Turbo Mouse trackball should be made using only the shielded cables provided.

Users should note that changes or modifications made to the Turbo Mouse or Turbo Mouse cabling not expressly approved by Kensington could cause interference and thus void the user's authority to operate the equipment.

Appendix F: Five Year Warranty

KENSINGTON MICROWARE LIMITED ("KENSINGTON") warrants this PRODUCT against defects in material and workmanship under normal use and service for five years from the original date of purchase. KENSINGTON, at its option, shall repair or replace the defective unit covered by this warranty.

Please retain the dated sales receipt as evidence of the date of purchase. You will need it for any warranty service.

To obtain warranty service during the warranty period you must:

1. Call the KENSINGTON returns department at 800-535-4242 or 415-572-2700.
2. Give a full description of the problem.
3. **Get a Return Authorization Number (RA#).**
4. Pack the PRODUCT in its original packaging or any other secure box so no further damage occurs. Enclose a letter inside the package giving us your name, address, phone number, RA# and a brief description of the problem. You must also enclose a copy of the sales receipt.
5. Clearly mark the outside of the package with the RA#. We will not accept any return without an RA# marked on the outside of the package.
6. Deliver the PRODUCT POSTAGE PREPAID to

   KENSINGTON
   2855 Campus Drive
   San Mateo, CA 94403
   Attention RA#_____

In order to keep this warranty in effect, the PRODUCT must have been handled and used as prescribed in the instructions accompanying this warranty. This warranty does not cover any damage due to accident, misuse, abuse, or negligence. This warranty is valid only if the PRODUCT is used on the computer or system specified on the product box. Please check product box for details or call technical support.

Repair or replacement as provided under this warranty is your exclusive remedy. KENSINGTON shall not be liable for any incidental or consequential damages for breach of any express or implied warranty on this product, except to the extent prohibited by applicable law. Any implied warranty of merchantability or fitness for a particular purpose on this PRODUCT is limited in duration to the duration of this warranty.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Appendix G: Software License Agreement

Kensington Microware Limited ("Kensington") provides this program and licenses its use subject to the conditions set forth below.

You may:

a) Use the program on a single machine;
b) Make a single backup copy;
c) Transfer the program and license to another party if the party agrees to accept the terms and conditions of this Agreement. If you transfer the program, you must at the same time either transfer the original and backup copy whether in printed or machine-readable form to the same party or destroy any copies not transferred; this includes all modifications and portions of the program contained or merged into other programs. Any transfer other than as expressly permitted shall be void and shall result in termination of this license.

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The program is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

The entire risk as to the quality and performance of the program is with you. Should the program prove defective, you (and not Kensington or any dealer), assume the entire cost of all necessary servicing, repair, or correction.

Kensington does not warrant that the functions contained in the program will meet your requirements or that the operation of the program will be uninterrupted or error-free.

However, Kensington warrants the diskette(s) on which the program is furnished, to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery to you as evidenced by a copy of your receipt. This warranty is only valid for the original purchaser.

With respect to the diskette warranty, Kensington's entire liability and your exclusive remedy shall be:

1. The replacement by Kensington of any diskette(s) not meeting Kensington's "Limited Warranty" and which is returned postage prepaid with a copy of your receipt to an authorized dealer, or to Kensington at 2855 Campus Drive, San Mateo, CA 94403.

2. If Kensington or the dealer is unable to deliver a replacement diskette(s) which is free of defects in materials or workmanship, you may terminate this Agreement by returning the program postage prepaid with a copy of your receipt and your money will be refunded.

In no event will Kensington be liable to you for any damages including any lost profits, lost savings, or other incidental or consequential damages arising out of the use or inability to use such program even if Kensington or an authorized dealer or either of them has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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Turbo Mouse 4.0 Comment Card

At Kensington we believe our customers are our most important resource. We want to hear your comments to help us improve our products.

Please use your new Turbo Mouse 4.0 trackball for at least one month and then comment on the features and design. What features do you like/dislike, and which do you use most often? What would you change if this was your product?

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Daytime Phone _____

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☐ yes ☐ no

Comments _____

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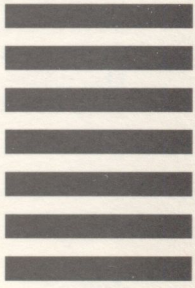

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